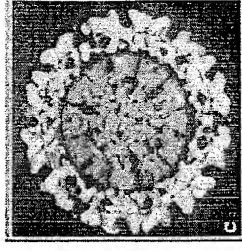
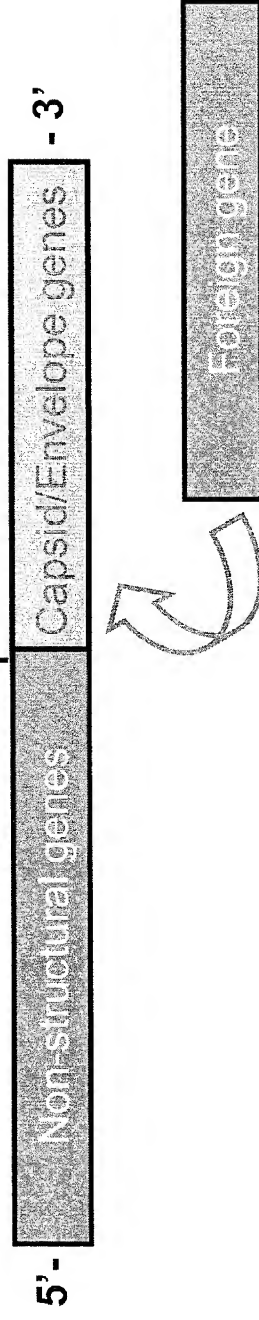


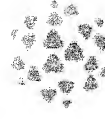
Generating a Self-replicating mRNA or “Replicon” Containing a Foreign Gene



The full-length alphavirus RNA is modified to contain a foreign gene



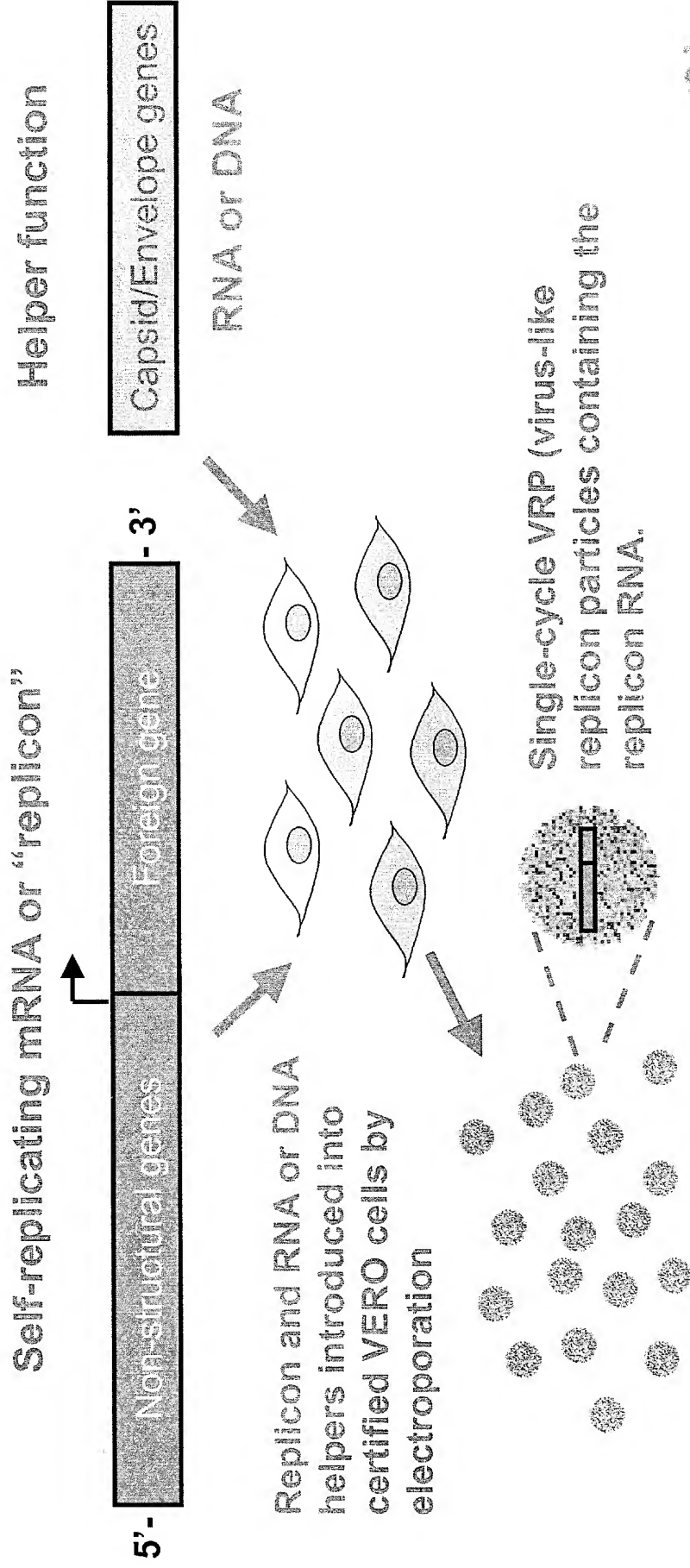
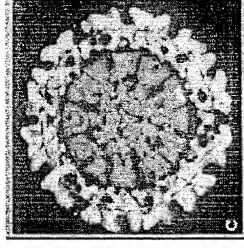
Resulting in a self-replicating mRNA or “replicon” and separate helper function



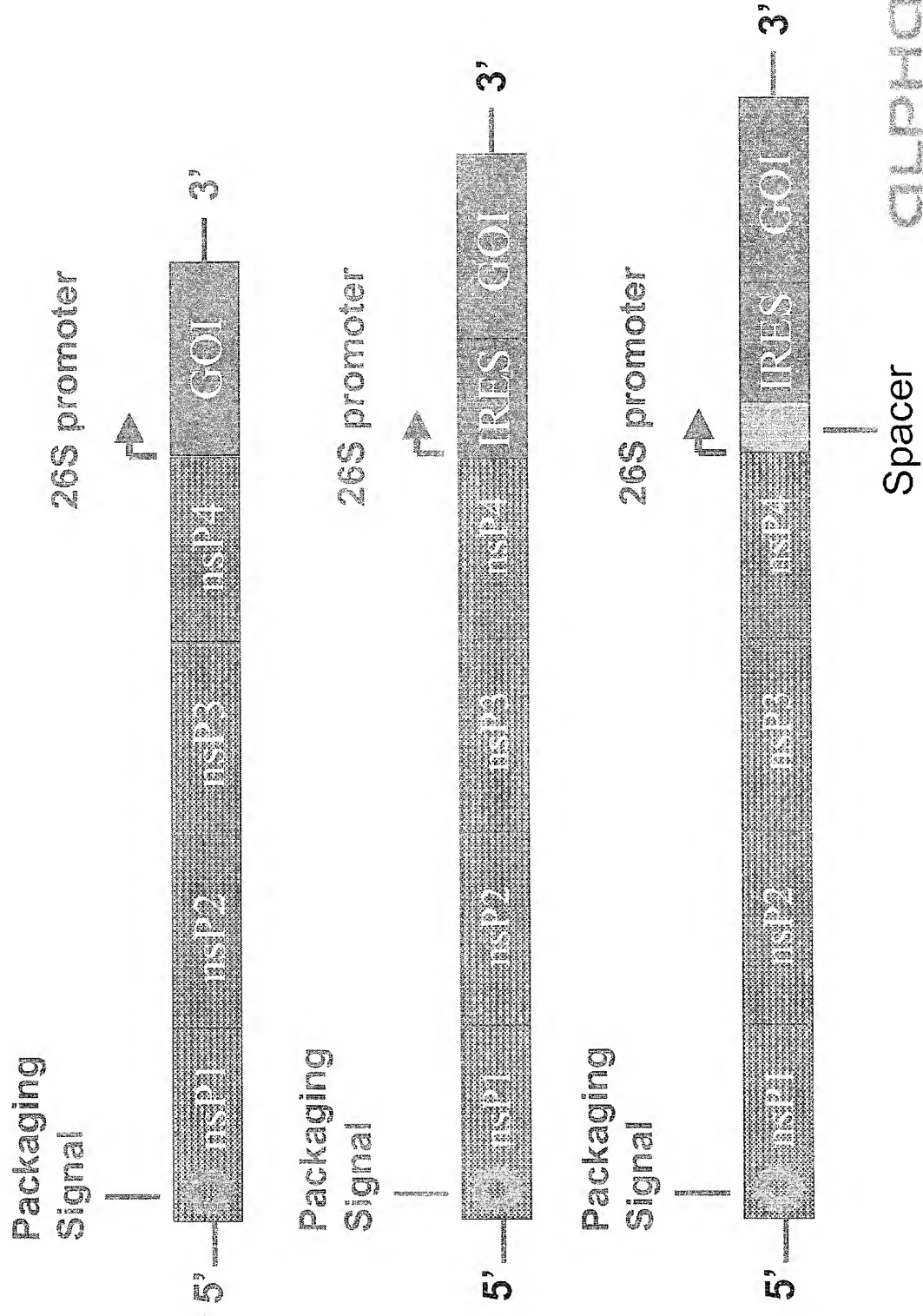
ALPHA VAX

Vaccines Redefined

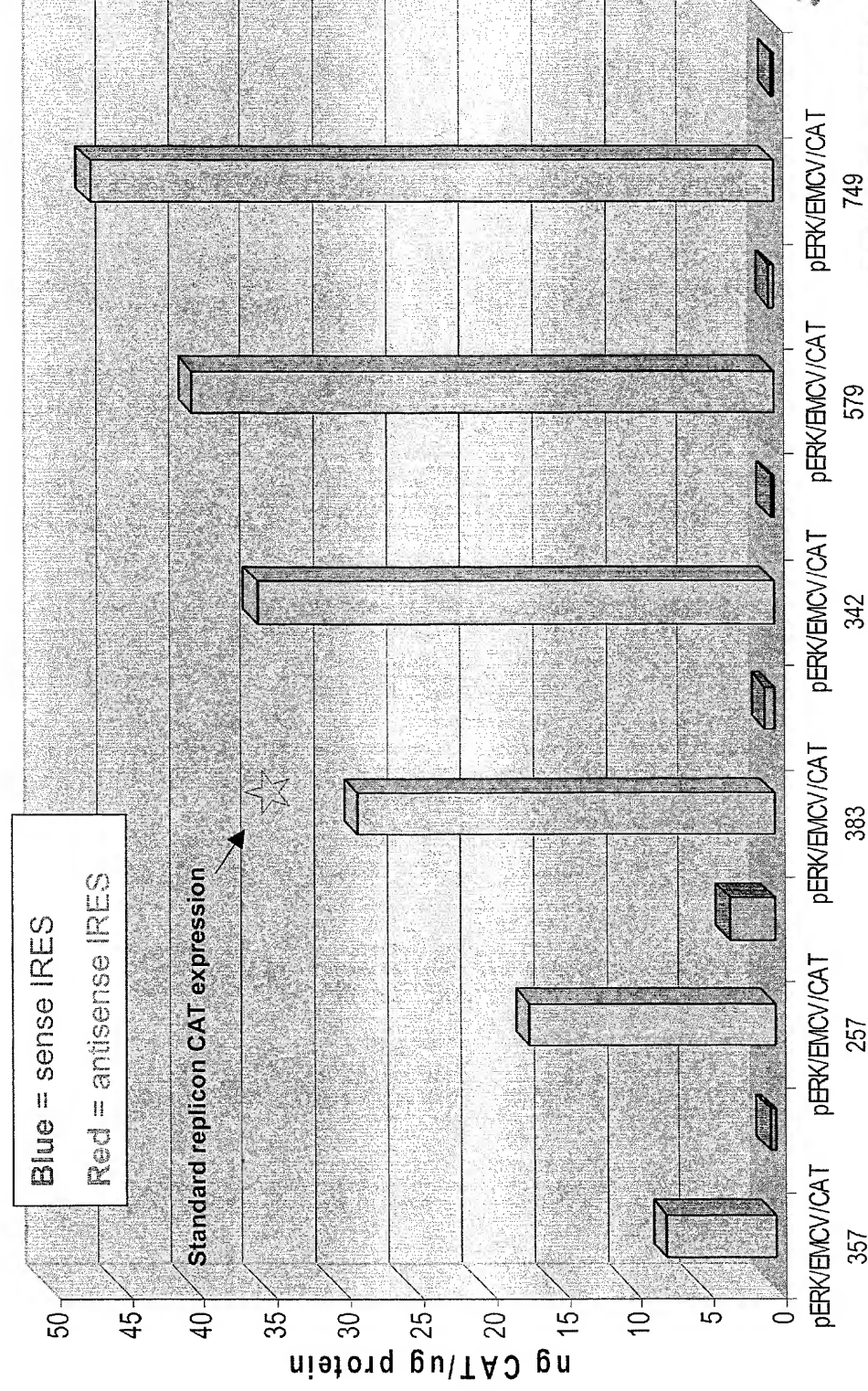
Production of Alphavaccines (in Transfected WHO Vero Cells)



Standard vs IRES-Based Replicon



Spacer-Regulated IRES Control of Replicon Expression



ALPHA VAX

Vaccines Redefined